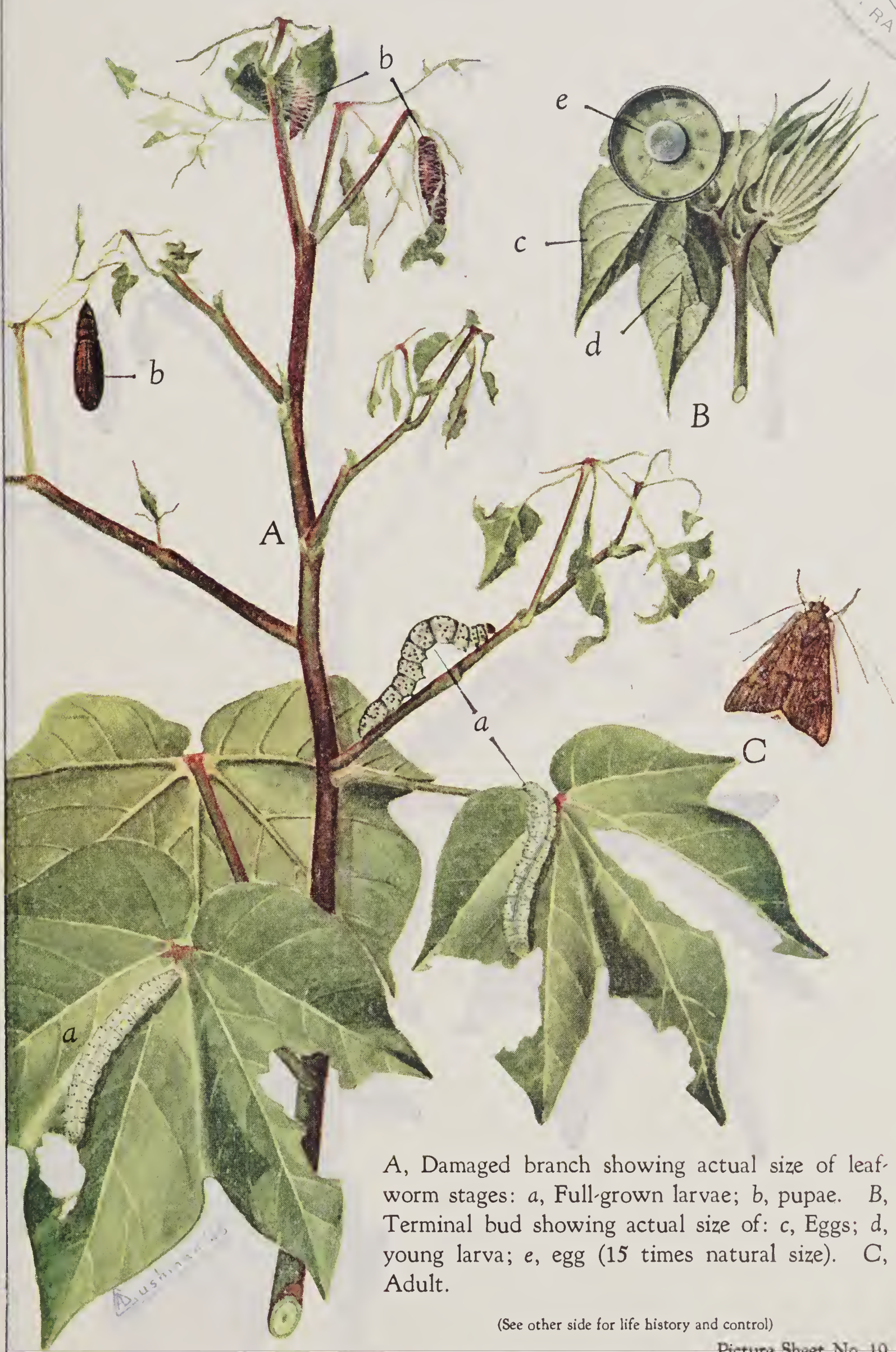


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COTTON LEAFWORM



A, Damaged branch showing actual size of leafworm stages: a, Full-grown larvae; b, pupae. B, Terminal bud showing actual size of: c, Eggs; d, young larva; e, egg (15 times natural size). C, Adult.

(See other side for life history and control)

Picture Sheet No. 19

COTTON LEAFWORM

(*Alabama argillacea* (Hbn.))

Injury and Life History

The cotton leafworm is a tropical insect not known to survive the winters in the United States. New infestations are started each spring by moths that fly in from the South and lay their eggs on cotton. The first leafworms generally appear in April, May, or June, usually in southern Texas but sometimes in Florida. As the leafworms increase in numbers, the moths fly to other areas, and in some years all the cotton States except California are invaded. The moths often reach the Northern States and Canada and feed on ripe fruit, such as peaches or grapes. The larvae, or "worms," feed only on cotton. The small leafworms feed on the under side of the leaves and do not cut through the upper surface. The larger worms eat the entire leaves. When abundant they completely strip, or "rag," the leaves and then gnaw on the squares, bolls, and bark until the field looks as if it had been swept by fire. The brown pupae are found within folded leaves or are attached by silken cords to the stems and ribs of the leaves.

The spread of the leafworm varies greatly from year to year. Although damage is usually greater west of the Mississippi River, control is often needed in the Eastern States. Early ragging of the plants prevents bolls from maturing and causes reductions in the yield and quality of the cotton. The stripping of the leaves by leafworms after most of the bolls are mature may be beneficial, for it may prevent boll weevils from increasing and keep the bolls from rotting on rank cotton by admitting more sunlight to the plants and permitting better circulation of air.

Control

Small cotton leafworms can be controlled very easily by dusting or spraying with any of the arsenical insecticides. Large worms are more difficult to control and may cause considerable stripping before they are killed. Dusting with calcium arsenate or lead arsenate at the rate of 5 to 7 pounds per acre will control leafworms. Other effective formulations are a 20 percent toxaphene dust, a benzene hexachloride dust containing 3 percent of the gamma isomer, and a mixture containing 5 percent of DDT plus sufficient benzene hexachloride so that the dust contains 3 percent of the gamma isomer. If a quick kill of large worms is needed to prevent stripping, add 7 or 8 pounds of paris green to each 100 pounds of calcium arsenate, or use 8 to 10 pounds of paris green plus 100 pounds of lime.

Caution.—Insecticides are poisonous and should be handled with care. Store in a dry place where children and animals will not have access to them.

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